

REMARKS

Prior to this amendment, claims 1-9, 11-15, 18, 20-22 and 27-33 are pending and rejected. By this Amendment, no claims have been amended; new claims 34-46 are added. Support for the language of the new claims can be found throughout the specification and claims as original filed. Specific support includes the following:

Support for the language in the new claims relating to the provided consensus sequence can be found in Figure 7, as well as in the specification at pages 27-28 (discussing specific portions of plant cyclin-dependent kinase inhibitor polypeptides). The consensus provided corresponds to positions 163-191 of the sequence of ICK1, as shown in Figure 7. This region is specifically called out in the specification, for instance, at page 28, line 21 (second paragraph). It is believed that the consensus sequence provides sufficient structural limitation to the claims to satisfy the written description requirement.

Support for language in the new claims relating to expression of the polypeptide in petal and/or stamen primordia, and the resultant inhibition in floral development can be found at least at page 7; lines 1-5; page 31, lines 13-26; and so forth. Support for language in the new claims relating to expression of the polypeptide in leaf cells, and the resultant inhibition of ploidy can be found at least at page 31, line 27 through page 32, line 21.

Use of the term “Cip/Kip” in reference to a plant cyclin-dependent kinase or inhibitor thereof was suggested in the pending Office action, and is believed to be a recognized by one of ordinary skill in the art as a class of kinases. In addition, both “Cip” and “Kip” are used in the specification in reference to a cyclin-dependent kinase; see, e.g., the list of References cited in the specification beginning at page 39.

No new matter has been added by this amendment. After entry of this amendment, **claims 1-9, 11-15, 18, 20-22 and 27-46 are pending.** Unless specifically stated otherwise, none of these amendments, additions, or arguments made herein are intended to limit the scope of any claim.

Examiner Interview (Telephonic)

Applicants thank the Examiner for taking the time to discuss this case, and the pending Office Action, with their undersigned representative on February 17, 2005. During that telephone interview, the pending rejections of claims under 35 U.S.C. §112 were discussed. In particular, the interview focused on (1) what type and degree of structure was considered necessary to provide a structural description of the subject kinase inhibitor polypeptides, and (2) what type(s) of functional language could be used to describe the effect(s) of expressing the subject kinase inhibitor polypeptides in a plant or plant cell.

Applicants acknowledge receipt of the Interview Summary mailed on March 1, 2005. As stated in that Interview Summary, agreement was not reached on all matters discussed in the interview. It is believed, however, that the response filed herewith, and particularly the new claims submitted below, are in accordance with the suggestions made during the interview.

Withdrawal of Objections and Rejections:

Applicants thank the Examiner for withdrawing certain rejections in light of the arguments presented in the prior response and Applicants' Appeal Brief. In particular, Applicants thank the Examiner for withdrawing the rejection of claims 28, 29, 31, and 33 under 35 U.S.C. §112, 1st paragraph (written description).

Claim Rejection Under 35 U.S.C. §112, first paragraph:

Claims 1-9, 11-15, 18, 20-22, 27, 30, and 32 are rejected as allegedly containing subject matter not described in the specification. Applicants traverse this rejection, and renew their arguments made previously, including arguments made in Applicants' Appeal Brief.

Claims 1-9, 11-15, 18, 20-22, and 27-33 are rejected as allegedly not enabled for their full scope. Applicants traverse this rejection, and renew their arguments made previously, including arguments made in Applicants' Appeal Brief.

Applicants further argue that at least claims 31 and 33 are enabled for their full scope, and request that the rejection of these claims be withdrawn and the claims allowed. It is alleged that these claims impose no specific requirement with respect to (1) the type of differentiated tissue affected or in what way its development is inhibited, and (2) the type of promoter used.

With regard to (1) the type of differentiated tissue and developmental inhibition, Applicants point out that claim 31 (by way of claim 30, from which it depends) specifies that the method is for modifying floral development, and states that the polypeptide is expressed in petal or stamen primordia. Similarly, claim 33 (by way of claim 32, from which it depends) specifies that the method is for decreasing ploidy, and states that the polypeptide is expressed in a differentiated tissue of the plant. It is believed that these limitations satisfy the enablement standard enunciated in the current Office action.

With regard to (2) the type of promoter used, Applicants argue strenuously that the selection of a promoter, and testing its effectiveness, is well within the skill of an ordinary practitioner and would not involve any undue experimentation. It is believed that claims 31 and 33 therefore also are enabled with regard to promoters. Applicants therefore request that the rejection of these claims under 35 U.S.C. §112 be withdrawn.

Claim Rejections Under 35 U.S.C. §102(b):

Claims 1, 8, 9, 15, 18, and 20-22 are rejected as allegedly anticipated by John (USPN 5,750,862). Applicants traverse this rejection.

John is cited as teaching a method of modifying development of plants by transforming a plant with a heterologous nucleic acid encoding the cyclin-dependent kinase inhibitors WEE-1 or MIK1 (referring to column 2, lines 1-7, lines 26-30, lines 54-64; column 3, lines 28-32; column 4, lines 32 and 41-65). Applicants note that in column 4, lines 57-58, the cited patent identifies the WEE-1 and MIK1 genes as being from fission yeast. It has been asserted that the yeast WEE-1 or MIK1 polypeptide would inhibit a plant CDK. Applicants renew their argument that there is no evidence to support this assertion. Furthermore, the sequences of the yeast WEE-1 and MIK1 are not plant CDK inhibitors, even if they may be yeast CDK inhibitors.

New claims 35 and 36, dependent from claims 15 and 18 respectively, are provided herein and specify a **plant cyclin-dependent kinase inhibitor polypeptide**. The reference cannot and does not anticipate these claims.

New Claims

It is believed that the new claims submitted herewith are free of all identified prior art. Further, these claims are believed to satisfy the requirements of §112, including both written description and enablement requirements, particularly as regards the outstanding rejections. The new claims have been prepared in light of the Examiner Interview carried out in this case on February 17, 2005, and in accordance with suggestions discussed at that time.

CONCLUSION

Based on the foregoing amendments and arguments, the claims are in condition for allowance and notification to this effect is requested.

If any issues remain, the Examiner is formally requested to contact the undersigned attorney (direct) at 503-595-8583 prior to issuance of the next Office action, in order to arrange a telephonic interview. It is believed that a brief discussion of the merits of the present application may expedite prosecution. Applicants submit the foregoing Amendment so that the Examiner may fully evaluate Applicants' position, thereby enabling any such interview to be more focused. This request is being submitted under MPEP § 713.01, which indicates that an interview may be arranged in advance by a written request.

Respectfully submitted,

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